

REMARKS

Claims 1-12 are pending in this application. By this Amendment, claim 1 is amended. Reconsideration in view of the above amendment and following remarks is respectfully requested.

The Office Action rejects claims 1-3 under 35 U.S.C. §102(b) over Tuneblom (U.S. Patent No. 3,722,381) and under 35 U.S.C. §102(b) over Niklewski (U.S. Patent No. 5,220,846). Applicant respectfully traverses these rejections.

Claim 1 is amended to recite, *inter alia*, "a bearing structure consisting essentially of one bearing." Applicant asserts that neither Tuneblom nor Niklewski discloses or suggests a vibrating aggregate comprising *inter alia*, a shaft including at each end thereof a shaft section mounted by a bearing structure consisting essentially of one bearing for each shaft section in a piece to be vibrated.

"Consisting essentially of," as explained in MPEP §2111.03, limits the scope of a claim to the specified materials or steps "and those that do not materially affect the basic and novel characteristic(s)" of the claimed invention. In re Herz, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976) (emphasis in original). As further explained, if an applicant contends that additional steps or materials in the prior art are excluded by the recitation "consisting essentially of," the applicant has the burden of showing that the introduction of additional steps or components would materially change the characteristics of the applicant's invention. In re De Lajarte, 337 F.2d 870, 143 USPQ 256 (CCPA 1964).

In the instant case, Applicant's specification satisfies this burden. Specifically, (1) page 2, lines 11-22 of the specification explains why the prior art devices use two bearings (i.e., to be able to resist bending moment), and the attendant problems thereof, and (2) page 3, lines 5-12 explain, *inter alia*, that a characteristic of the invention is to enable the use of one bearing (as opposed to two). It is evident from these passages that requiring the use of two

bearings in order to resist bending moment would materially change the characteristics of applicant's invention.

Tuneblom discloses a shaft assembly that is held in place at each end by two bearings (58 and 60; Fig. 4). There is no disclosure that the shaft assembly includes a joint capable of transmitting a bending moment. Thus, it appears that, like the prior art discussed in Applicant's specification, Tuneblom requires two bearings instead of only one bearing. Therefore, Tuneblom does not anticipate claim 1.

Similarly, Niklewski discloses in Fig. 3 that a shaft (4) is supported at each end by two bearings (3a, Fig. 4). Also, Niklewski clearly teaches that the shaft ends are connected by a flexible shaft (Col. 4, lines 25-26), which strongly suggests that the joint is not rigid and not capable of transmitting bending moment. There is no disclosure that the shaft assembly includes a joint capable of transmitting a bending moment. Thus, it appears that, like the prior art discussed in Applicant's specification, Niklewski requires two bearings to transmit the bending moment. Therefore, Niklewski does not anticipate claim 1.

Accordingly, Applicant respectfully requests that the rejection of claim 1 over Tuneblom and Niklewski be withdrawn.

The Office Action rejects claims 4, 5 and 7-11 under 35 U.S.C. §103(a) over Tuneblom in view of Redinger (U.S. Patent No. 1,615,233) and under 35 U.S.C. §103(a) over Niklewski in view of Redinger. Applicant respectfully traverses these rejections.

Redinger fails to cure the deficiencies of Tuneblom and Niklewski in disclosing each and every feature of allowable claim 1. Since claims 4, 5 and 7-11 depend on claim 1, these claims are allowable at least for their dependency on claim 1.

In addition, neither Tuneblom, Niklewski nor Redinger disclose or suggest a recess tapering towards its bottom and the projection tapers towards its point, the recess being provided at an end of one of the joint and the connecting shaft, in the context of a vibrating

aggregate, as recited in dependent claim 4. Although joining two rotary components by a tapered joint may be known in the art, Applicant asserts that providing such a joint would not have been obvious in the context of a vibrating aggregate. As such, Applicant respectfully requests that the rejection of claims 4-5 and 7-11 be withdrawn.

The Office Action rejects claims 6 and 12 under 35 U.S.C. §103(a) over Tuneblom and under 35 U.S.C. §103(a) over Niklewski. Applicant respectfully traverses these rejections.

As discussed above, neither Tuneblom nor Niklewski discloses each and every feature of claim 1. Claim 1 would also not have been obvious in view of Tuneblom or Niklewski. Thus, for at least their dependency on claim 1, Applicant asserts that claims 6 and 12 also define patentable subject matter.

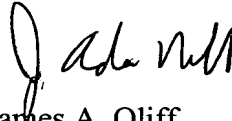
Additionally, while the Office Action states that "joining two rotary components by corresponding surfaces was known in the art," the Office Action does not (1) give an example of such a teaching in the art or (2) explain why a pyramid shape specifically would have been obvious.

Accordingly, Applicant respectfully requests that the rejections of claims 6 and 12 be withdrawn.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-12 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

J. Adam Neff
Registration No. 41,218

JAO:TMN/jan

Date: September 2, 2003

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

<p>DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461</p>
--